

HyperVentilate

A Software Guidance
System Created For
Vapor Extraction
Systems For
Apple Macintosh And
IBM PC-Compatible
Computers

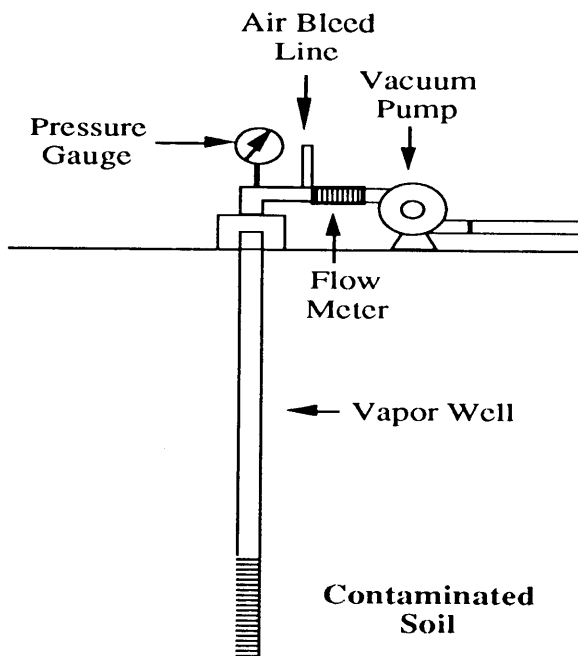


Illustration from HyperVentilate Software

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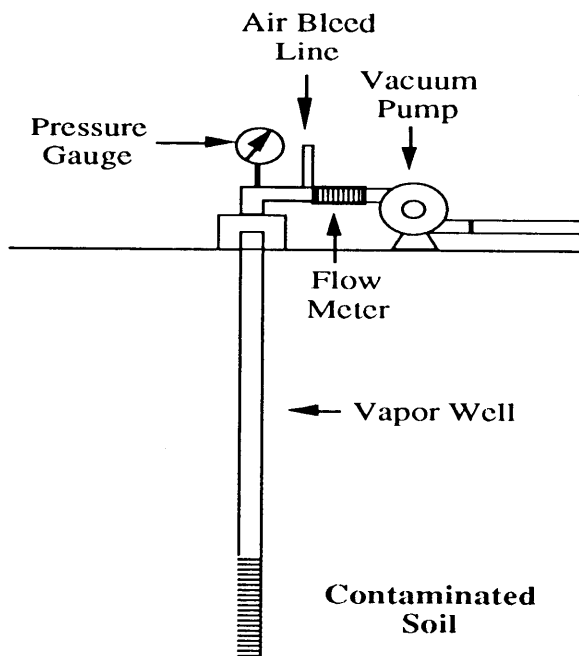


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What Is HyperVentilate?

HyperVentilate is user-friendly software that can help you use vapor extraction (soil venting) technology. This software guides the user through a structured thought process that involves:

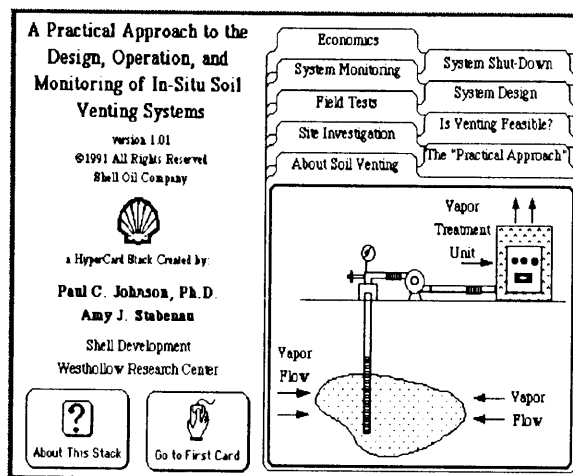
- Identifying and characterizing required site-specific data,
- Deciding if soil venting is appropriate at a specific site,
- Evaluating air permeability test results,
- Calculating the minimum number of vapor extraction wells needed, and
- Illustrating how the results at a specific site might differ from the ideal case.

HyperVentilate will not completely design your vapor extraction system, tell you exactly how many days it should be operated, or predict the future. *HyperVentilate* is both an educational tool for the novice environmental professional and a functional tool for more experienced users. It performs necessary calculations and contains "help cards" that define the equations used, make the necessary unit conversions, and give supplementary information on related topics. In addition, *HyperVentilate* contains a list of 62 compounds that can be updated by the user to a maximum of 400 compounds.

What Do I Need To Run It?

HyperVentilate (v.1.01) for Apple Macintosh requires an Apple Macintosh (Plus or later) computer with at least 1 MB RAM (2 MB preferred) and the Apple HyperCard program, version 2.0 or higher.

HyperVentilate (v.2.0) for Microsoft Windows/Spinnaker PLUS requires an IBM PC-compatible computer with an 80386



Sample screen from HyperVentilate

or higher processor, 4 MB RAM minimum, and VGA or 8514. The software requirements are DOS 3.1 or higher, Microsoft Windows 3.0 or higher, and at least a runtime version of Spinnaker PLUS, version 2.5 or higher.

Apple, Macintosh, and HyperCard are registered trademarks of Apple Computer, Inc., 408 996-1010. IBM is a registered trademark of International Business Machines Corporation, 1 800 426-1234. Spinnaker PLUS is a registered trademark of Spinnaker Software Corporation, 1 800 323-8088, ext. 386. Windows is a registered trademark of Microsoft Corporation, 1 800 426-9400.

Superintendent of Documents Order Form

Order Processing Codes

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☐ **YES**, please send me the following:

_____ copies of HyperVentlate (IBM PC compatible) S/N 055-000-00427-7 at \$22 each.

____ copies of HyperVentilate (Macintosh) SN 055-000-00403-0 at \$17 each.

The total cost of my order is \$. International customers please add 25%. Price includes regular domestic postage and handling and is subject to change.

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Why HyperVentilate?

HyperVentilate software was developed by the U.S. Environmental Protection Agency (EPA) and Shell Oil Company under a 1990 Cooperative Research and Development Agreement under the Federal Technology Transfer Act. EPA has evaluated *HyperVentilate* and is facilitating the distribution of the software and manual because it has found that they can be helpful tools, especially when teaching users about in-situ soil venting and when guiding them through the structured thought process used to evaluate the applicability of soil venting at a particular site.

HyperVentilate is based on the article "A Practical Approach to the Design, Operation, and Monitoring of Soil Venting Systems" by P. C. Johnson, C. C. Stanley, M. W. Kemblowski, J. D. Colthart, and D. L. Byers, *Ground Water Monitoring Review*, Spring 1990, pp. 159 - 178.

EPA and Shell Oil Company make no warranties, either express or implied, regarding the *HyperVenilate* computer software package, its merchantability, or its fitness for any particular purpose. EPA and Shell Oil Company do not warrant that this software will be error-free or operate without interruption. EPA and Shell Oil Company do encourage testing of this product.

At this time, EPA does not intend to provide technical support for, to update, or to fix any bugs that might be found in this software. Neither the software nor the users manual is copyrighted.

How Do I Order?

A package consisting of a users manual and either a 3.5" Macintosh disk or a 3.5" high density IBM PC-compatible disk is available from the U.S. Government Printing Office (GPO), Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

Stock numbers:

For IBM: 055-000-00427-7, \$22

For Macintosh: 055-000-00403-0, \$17

An order form appears in this leaflet.

In addition, EPA's Office of Research and Development has published a report entitled *Decision-Support Software for Soil Vapor Extraction Technology Application: HyperVentilate* (publication number EPA/600/R-93/028). This report includes an overview of soil vapor extraction principles and procedures, a case study of an application of the software, a sensitivity analysis of the software's outputs, and a users manual. A package consisting of the report (which includes the users manual) and both the Macintosh and IBM PC-compatible disks or the report only is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703 487-4650.

Order numbers:

Report and **both** disks: PB93-502664/AS, \$140

Report only: PB93-134880/AS, \$27

Both versions of the HyperVentilate software can be downloaded (in compressed form) from the following electronic bulletin boards:

EPA's Cleanup Information Bulletin Board (CLU-IN)—no charge

Data transmission 301 589-8366

System operator 301 589-8368

EPA's Alternative Treatment Technology Information Center (ATTIC)—no charge

Data transmission 301 670-3808

System operator 301 670-6294

GPO's Federal Bulletin Board (for deposit account holders)

Data transmission 202 512-1387

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